Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 to 51 (cancelled)

52. (new) Method for the treatment of an eye of a mammal, the eye having a conjunctival sac comprising the steps of:

a. preparing a sterile polyaphron gel comprising at least one water-soluble fluorinated surfactant in a concentration lower than critical micellae formation, water and one homopolar component in an amount greater than 60% by weight selected from the group consisting of partially fluorinated fluorocarbon compounds of the general formula R_FR_H, $R_FR_HR_F$, fluorocarbon oligomers of the type $(R_F)_XR_H$, silicone oil, and mixtures thereof;

b. introducing the sterile polyaphron gel into the conjunctival sac of the eye to form a gel-like reservoir whereupon at each blink of the eye, a portion of the sterile polyaphron gel irreversibly liquefies under the effect of the shear forces caused by the blink, extrudes from the conjunctival sac and spreads over the cornea of the eye as a thin liquid film functioning as a tear substitute.

53. (new) Method in accordance with claim 52, wherein the fluorinated surfactant is of the general formula

$$R_F\text{-}R_{POL}$$

whereby R_F is a linear or branched perfluoroalkyl group having more than 5 carbon atoms and Rpol is a polar hydrogen residue comprising at least one functional group selected from the series CO-NH(R), CO-NH$(R)_2$, COO-, COOR, SO_3, SO_2-N$(R)_2$, CH_2-O-R, PO_2H, PO_3H whereby R is an alkyl.

54. (new) Method in accordance with claim 52, wherein the molecular mass of the fluorinated surfactant is greater than 400/Imol, and the surface tension of the fluorinated surfactant in aqueous solution is less than 30 m/Nm.

55. (new) Method in accordance with claim 52, wherein the concentration of the fluorinated surfactant is lower than 0.1% and the concentration of fluorocarbons is greater than 90 weight percent.

56. (new) Method in accordance with claim 52, wherein the water-soluble fluorinated surfactant has at least 6 fully fluoridated carbon atoms.

57. (new) Method in accordance with claim 52, wherein the sterile polyaphron gel has a refraction index of 1.334 to 1.338.

58. (new) Method in accordance with claim 52, wherein the sum of the surface tension of the sterile polyaphron gel and the interfacial tension between the sterile polyaphron gel and the surface of the eye is smaller than the surface tension of the surface of the eye,

59. (new) A sterile polyaphron gel comprising at least one water-soluble fluorinated surfactant in a concentration lower than critical micellae formation, water and one homopolar component in an amount greater than 60% by weight selected from the group consisting of partially fluorinated fluorocarbon compounds of the general formula R_FR_H, $R_FR_HR_F$, fluorocarbon oligomers of the type $(R_F)_XR_H$, silicone oil, and mixtures thereof; said sterile polyaphron gel being adapted for introduction into the conjunctival sac of an eye of a mammal to form a gel-like reservoir whereupon at each blink of the eye, a portion of the sterile polyaphron gel will liquefy irreversibly under the effect of the shear forces caused by the blink, extrude from the conjunctival sac and spread over the cornea of the eye as a thin liquid film functioning as a tear substitute.

60. (new) A sterile polyaphron gel in accordance with claim 59, wherein the fluorinated surfactant is of the general formula

$$R_F\text{-}R_{POL}$$

whereby R_F is a linear or branched perfluoroalkyl group having more than 5 carbon atoms and Rpol is a polar hydrogen residue comprising at least one functional group selected from the series CO-NH(R), CO-NH$(R)_2$, COO-, COOR, SO_3, SO_2-N$(R)_2$, CH_2-O-R, PO_2H, PO_3H whereby R is an alkyl.

61. (new) A sterile polyaphron gel in accordance with claim 59, wherein the molecular mass of the fluorinated surfactant is greater than 400/Imol, and the surface tension of the fluorinated surfactant in aqueous solution is less than 30 m/Nm.

62. (new) A sterile polyaphron gel in accordance with claim 59, wherein the concentration of the fluorinated surfactant is lower than 0.1% and the concentration of fluorocarbons is greater than 90 weight percent.

63. (new) A sterile polyaphron gel in accordance with claim 59, wherein the water-soluble fluorinated surfactant has at least 6 fully fluoridated carbon atoms.

64. (new) A sterile polyaphron gel in accordance with claim 59, wherein the sterile polyaphron gel has a refraction index of 1.334 to 1.338.

65. (new) A sterile polyaphron gel in accordance with claim 59, wherein the surface tension of the sterile polyaphron gel is adjusted such that the sum of the surface tension of the sterile polyaphron gel and the interfacial tension between the sterile polyaphron gel and the surface of the eye is smaller than the surface tension of the surface of the eye,